# **REMARKS**

## I. Status of the Claims

Claims 14-40 are pending. Claims 26, 30-32 and 35-40 are withdrawn from consideration because of a restriction requirement. Claims 14-25, 27-29, 33, and 34 remain for consideration.

## II. Restriction Requirement

Applicants acknowledge with thanks the Examiner's decision to examine the claims of Groups I and II together on the merits.

# III. Response to the Section 102(b) Rejection

Applicants traverse the rejection of claims 14-25, 27-29, 33, and 34 under 35 U.S.C.§ 102(b) as anticipated by DE 10028432 (Mihan et al.), equivalent to US 2004/0242880.

Applicants believe that the cited reference was published too late to form the basis for a proper rejection under Section 102(b). In particular, the earliest publication of the Mihan reference was as WO 2003/024982, which published on 27 March 2003. Thus, for a Section 102(b) rejection to apply, Applicants' U.S. patent application would have to be filed after 27 March 2004.

The instant case, originally filed using the PCT, entered the national phase on 7 May 2007, but is based on an international application filed 14 December 2004, which claims priority to a German application (10359341.1) filed 16 December 2003 and a provisional U.S. application (60/543,360) filed 16 December 2003. Because the priority documents precede 27 March 2004, Applicants believe that a Section 102(b) rejection is not warranted.

Applicants recognize that although a Section 102(b) rejection may lack basis, the claims might have been properly rejected under Section 102(e) based on the same document. For the reasons that follow Applicants believe that the claims are distinguishable over Mihan et al.

#### Claim 14, a representative independent claim, reads as follows:

- 14. A monocyclopentadienyl complex comprising a structural feature of formula  $Cp-Y_mM^A$  (I), wherein:
  - Cp is a cyclopentadienyl system comprising an aryl substituent;
  - Y is a substituent which is bound to Cp and comprising at least one uncharged donor comprising at least one atom of group 15 or 16 of the Periodic Table;
  - M<sup>A</sup> is titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum or tungsten, or an element of group 3 or a lanthanide of the Periodic Table; and
  - m is 1, 2 or 3.

A required element of the claimed complexes is a cyclopentadienyl system that comprises "an aryl substituent." By "substituent," the skilled person appreciates that an aryl group is attached to the cyclopentadienyl ring.

The reference generally teaches chromium complexes, a "Y" substituent bound to a cyclopentadienyl ring, and the need for a heterocyclic ring that is fused to the cyclopentadienyl ring (see structures at ¶s [0235], [247], and [253]). Not specifically taught is an aryl substitutent attached to the cyclopentadienyl ring. In each of the examples of Mihan et al., the complex involves a Cp that is fused to a heterocyclic ring. In some cases, an aryl group is attached to the heterocyclic ring, but not to the cyclopentadienyl group.

Moreover, Applicants surprisingly found that an aryl substituent on the cyclopentadienyl ring imparts substantial benefits when compared with an alkyl substituent. In particular, the complexes of Examples 1 and 2 were generally more productive than the complex of (comparative) Example 3, an advantage attributable to the presence of the aryl substituent (see Table 1). The claimed complexes therefore meet the Title 35 patentability requirements.

### IV. Conclusion

In view of the remarks above, Applicants respectfully ask the Examiner to reconsider and withdraw the rejection and pass the case to issue. Applicants invite the Examiner to telephone their attorney at (610) 359-2276 if she believes that a discussion of the application might be helpful.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box. 1450, Alexandria, VA 22313-1450 on October 14, 2008

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October 14, 2008